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     (FILE 'HOME' ENTERED AT 13:15:46 ON 20 DEC 2001)

     FILE 'HCAPLUS' ENTERED AT 13:15:52 ON 20 DEC 2001

     FILE 'REGISTRY' ENTERED AT 13:16:02 ON 20 DEC 2001
L1             2 SEA ABB=ON  PLU=ON  LYSINE/CN
               D 1-2

     FILE 'HCAPLUS' ENTERED AT 13:16:24 ON 20 DEC 2001

     FILE 'REGISTRY' ENTERED AT 13:16:28 ON 20 DEC 2001
               SET SMARTSELECT ON
L2             SEL PLU=ON  L1 1- CHEM :      26 TERMS
               SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 13:16:29 ON 20 DEC 2001
L3         88318 SEA ABB=ON  PLU=ON  L2
               E TRANCRIPTION FACTOR/CT
               E TRANCRIPTION REGULATOR/CT
               E TRANCRIPTION/CT
L4          1197 SEA ABB=ON  PLU=ON  TRANSCRIPT? (L) L3
               E CORYNEFORM/CT
               E E5+ALL
L5           919 SEA ABB=ON  PLU=ON  (BACTERIA (L) CORYNEFORM) OR CORYNEFORM
               BACTERIA OR CORYNEFORM
L6             2 SEA ABB=ON  PLU=ON  L5 (L) L4
               D IBIB AB 1-2
L7           546 SEA ABB=ON  PLU=ON  L4 (L) (FACTOR OR REGULAT?)
L8           463 SEA ABB=ON  PLU=ON  L7 AND PD<20000810
L9            34 SEA ABB=ON  PLU=ON  L7 AND PREP/RL
L10           27 SEA ABB=ON  PLU=ON  L9 AND PD<20000810
               D IBIB AB 1-27
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=> d ibib ab 1-2

L6 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:28655 HCAPLUS
DOCUMENT NUMBER: 134:99670
TITLE: L-lysine producing coryneform bacteria and methods for the production of l-lysine
INVENTOR(S): Kreutzer, Caroline; Mockel, Bettina; Pfefferle, Walter; Eggeling, Lothar; Sahm, Hermann; Patek, Miroslav
PATENT ASSIGNEE(S): Degussa-Huels Aktiengesellschaft, Germany; Forschungszentrum Juelich
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1067193	A1	20010110	EP 2000-114502	20000706
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19931314	A1	20010111	DE 1999-19931314	19990707
JP 2001037495	A2	20010213	JP 2000-202550	20000704
BR 2000002445	A	20010508	BR 2000-2445	20000705
CN 1280185	A	20010117	CN 2000-120357	20000707

PRIORITY APPLN. INFO.: DE 1999-19931314 A 19990707
AB The invention concerns the prodn. of L-amino acids by coryneform bacteria strain comprising an enhanced pyc gene (Pyruvat-carboxylase-gene), addnl. genes are chosen from the dapA gene group (dihydrodipicolinate synthase . gene), lysC gene (aspartate kinase gene), lysE gene (lysine-export-carrier-gene), dapB gene (dihydrodipicolinate reductase gene),that are used by one or together. The dapA gene was most effective enhancer of L-lysine prodn. The following L-lysine strain producers were established: Escherichia coli K12 DSM 12871, DSM 12875, and Corynebacterium glutamicum DSM 12869, DSM 12867, DSM 12868, DSM 12866.
REFERENCE COUNT: 4
REFERENCE(S):
(1) Ajinomoto Kk; EP 0854189 A 1998 HCAPLUS
(2) Kernforschungsanlage Juelich; EP 0435132 A 1991 HCAPLUS
(3) Kernforschungsanlage Juelich; DE 19548222 A 1997 HCAPLUS
(4) Kernforschungsanlage Juelich; DE 19831609 A 1999 HCAPLUS

L6 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:28654 HCAPLUS
DOCUMENT NUMBER: 134:99669
TITLE: L-lysine producing coryneform bacteria and methods for the production of L-lysine
INVENTOR(S): Mockel, Bettina; Pfefferle, Walter; Kreutzer, Caroline; Hans, Stephan; Rieping, Mechthild; Eggeling, Lothar; Sahm, Hermann; Patek, Miroslav
PATENT ASSIGNEE(S): Degussa-Huels Aktiengesellschaft, Germany; Forschungszentrum Juelich G.m.b.H.
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1067192	A1	20010110	EP 2000-114501	20000706
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

DE 19931317	A1	20010111	DE 1999-19931317	19990707
US 6200785	B1	20010313	US 1999-353133	19990714
JP 2001061485	A2	20010313	JP 2000-202551	20000704
CN 1280184	A	20010117	CN 2000-109840	20000707
BR 2000002655	A	20010605	BR 2000-2655	20000707

PRIORITY APPLN. INFO.: DE 1999-19931317 A 19990707

AB The invention concerns the prodn. of L-amino acids by coryneform bacteria strain comprising an enhanced lysE gene (lysin-export-carrier-gene), addnl. genes are chosen from the dapA gene group (dihydrodipicolinate synthase gene), lysC gene (aspartate kinase gene), dapB or pyc gene, that are used by one or together. The following L-lysine strain producers were established: Escherichia coli K12 DSM 12871, DSM 12875, and Corynebacterium glutamicum DSM 12869, DSM 12867, DSM 12868, DSM 12866.

REFERENCE COUNT: 4

REFERENCE(S):

(1) Ajinomoto Kk; EP 0854189 A 1998 HCAPLUS

(2) Kernforschungsanlage Juelich; EP 0435132 A 1991 HCAPLUS

(3) Kernforschungsanlage Juelich; DE 19548222 A 1997 HCAPLUS

(4) Kernforschungsanlage Juelich; DE 19831609 A 1999 HCAPLUS

=> d ibib ab 1-27

L10 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:346201 HCAPLUS
DOCUMENT NUMBER: 135:253358
TITLE: Synthesis of the unnatural amino acid N'-**L-lysine**-ferrocenyl acetamide and site specific incorporation into **transcription factor** IIIA
AUTHOR(S): Higgins, Pamela Jane
CORPORATE SOURCE: Univ. of Notre Dame, Notre Dame, IN, USA
SOURCE: (**2000**) 152 pp. Avail.: UMI, Order No. DA9969785
From: Diss. Abstr. Int., B 2000, 61(4), 1933
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L10 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:609846 HCAPLUS
DOCUMENT NUMBER: 133:331230
TITLE: First non-radioactive assay for in vitro screening of histone deacetylase inhibitors
AUTHOR(S): Hoffmann, K.; Brosch, G.; Loidl, P.; Jung, M.
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Westfalische Wilhelms-Universitat Munster, Munster, Germany
SOURCE: Pharmazie (**2000**), 55(8), 601-606
CODEN: PHARAT; ISSN: 0031-7144
PUBLISHER: Govi-Verlag Pharmazeutischer Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Inhibitors of histone deacetylase (HD) are of great potential as new drugs due to their ability to influence **transcriptional regulation** and to induce apoptosis or differentiation in cancer cells. So far only radioactive enzyme activity assays or in-vivo assays with subsequent electrophoresis and immunoblotting exist to study the activity of HD and potential inhibitors. To aid in the search of new inhibitors, a non-radioactive screening assay was sought and we have previously succeeded in establishing this for the first time. The assay uses an aminocoumarin deriv. of an .OMEGA.-acetylated **lysine** as substrate for the enzyme. Here we report full exptl. details, the evaluation of other potential substrates, and comparative anal. of various inhibitors. This advantageous method should have an impact on further developments in the field.
REFERENCE COUNT: 25
REFERENCE(S): (1) Brosch, G; Biochemistry 1996, V35, P15907 HCAPLUS
(2) Brosch, G; Plant Cell 1995, V7, P1941 HCAPLUS
(3) Darkin-Rattray, S; Proc Natl Acad Sci USA 1996, V93, P13143 HCAPLUS
(4) Finnin, M; Nature 1999, V401, P188 HCAPLUS
(5) Grignani, F; Nature 1998, V391, P815 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:552666 HCAPLUS
DOCUMENT NUMBER: 133:251309
TITLE: Overexpression of the lys1 gene in Penicillium chrysogenum: homocitrate synthase levels, .alpha.-aminoadipic acid pool and penicillin production
AUTHOR(S): Banuelos, O.; Casqueiro, J.; Gutierrez, S.; Martin, J. F.
CORPORATE SOURCE: Facultad de Biologia, Universidad de Leon, Leon, 24071, Spain
SOURCE: Appl. Microbiol. Biotechnol. (**2000**), 54(1), 69-77
CODEN: AMBIDG; ISSN: 0175-7598
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Homocitrate synthase activity (encoded by the lys1 gene) catalyzes the first step of the **lysine** and penicillin pathway and is highly sensitive to feedback **regulation** by **L-lysine** . The **transcript** levels of the lys1 gene and the homocitrate synthase activity are high during the growth phase and decrease during the antibiotic prodn. phase, except in the high penicillin producer strain AS-P-99 which maintained high levels of homocitrate synthase activity in cultures at 96 h and 120 h. The lys1 gene was overexpressed in Penicillium chrysogenum using addnl. copies of lys1 with its own promoter or under the control of the pcbC promoter in either autonomously replicating or integrative vectors. Transformants contg. 3 to 32 addnl. copies of the lys1 gene were selected. Some of these transformants, particularly TI-C4 (integrative) and TAR-L9 (with autonomously replicating plasmids) showed very high levels of lys1 **transcript** and, in the case of TAR-L9, high levels of homocitrate synthase activity in cultures of 120 h. However, these transformants did not show increased .alpha.-aminoadipate or **lysine** pools. A mutant P. chrysogenum L-G- disrupted in the lys2 gene (therefore lacking the **lysine** branch of the pathway) showed increased .alpha.-aminoadipate levels and produced higher levels of penicillin than non-disrupted control strains. Overexpression of the lys1 gene in the L-G- mutant resulted in high homocitrate synthase levels but no addnl. increase of the .alpha.-aminoadipate .cntdot. pool or penicillin prodn. levels. These results suggest that after amplification of the homocitrate synthase levels there are other limiting steps in the common stem of the **lysine** and penicillin pathways.

REFERENCE COUNT: 31
REFERENCE(S): (1) Banuelos, O; Gene 1999, V226, P51 HCAPLUS
(2) Bhattacharjee, J; Critical reviews in microbiology 1985, V12, P131 HCAPLUS
(3) Bradford, M; Anal Biochem 1976, V72, P248 HCAPLUS
(4) Cantoral, J; Biotechnology 1987, V5, P494 HCAPLUS
(5) Casqueiro, J; J Bacteriol 1999, V181, P1181 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:552664 HCAPLUS
DOCUMENT NUMBER: 133:263119

TITLE: Expression in Escherichia coli, purification and kinetic analysis of the aspartokinase and aspartate semialdehyde dehydrogenase from the rifamycin SV-producing Amycolatopsis mediterranei U32

AUTHOR(S): Zhang, W.-W.; Jiang, W.-H.; Zhao, G.-P.; Yang, Y.-L.; Chiao, J.-S.
CORPORATE SOURCE: Department of Microbiology, Shanghai Institute of Plant Physiology, Academia Sinica, Shanghai, 200032, Peop. Rep. China

SOURCE: Appl. Microbiol. Biotechnol. (**2000**), 54(1), 52-58
CODEN: AMBIDG; ISSN: 0175-7598
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The operon encoding aspartokinase and aspartate semialdehyde dehydrogenase was cloned and sequenced from rifamycin-SV-producing Amycolatopsis mediterranei U32 previously. In the present work, these two genes were introduced into the auxotrophic Escherichia coli strain CGSC5074 (ask-) and E. coli X6118 (asd-), resp. The A. mediterranei U32 aspartokinase and aspartate semialdehyde dehydrogenase genes can be functionally expressed in E. coli and the gene products are able to substitute for the E. coli enzymes. Histidine-tagged aspartokinase and aspartate semialdehyde dehydrogenase were partially purified from E. coli cellular exts. and their kinetic characteristics were studied. Both aspartokinase and aspartate semialdehyde dehydrogenase showed typical Michaelis-Menten type substrate satn. patterns. Aspartokinase has Km values of 3.4 mM for aspartate and 2.3 mM for ATP, while aspartate semialdehyde dehydrogenase has Km values of 1.25 mM for DL-aspartate semialdehyde and 0.73 mM for

NADP, resp. Aspartokinase was inhibited by L-threonine, **L-lysine**, and L-methionine, but not by L-isoleucine and diaminopimelate. Aspartate semialdehyde dehydrogenase was not inhibited by any of the end-product amino acids at a concn. of less than 5 mM. Hill plot anal. suggested that aspartokinase was subject to allosteric control by L-threonine. Repression of both aspartokinase and aspartate semi-aldehyde dehydrogenase gene **transcription** in A. mediterranei U32 by **L-lysine**, L-methionine, L-threonine, and L-isoleucine were found. The network of **regulation** of aspartokinase and aspartate semialdehyde dehydrogenase in rifamycin SV-producing A. mediterranei U32 is presented.

REFERENCE COUNT: 32

REFERENCE(S):
(1) Baril, C; J Gen Microbiol 1992, V138, P47 HCAPLUS
(2) Biellmann, J; Eur J Biochem 1980, V104, P53 HCAPLUS
(3) Bondaryk, R; J Biol Chem 1985, V260, P592 HCAPLUS
(4) Bradford, M; Anal Biochem 1976, V72, P248 HCAPLUS
(5) Chen, N; J Biol Chem 1987, V262, P8787 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:258479 HCAPLUS
DOCUMENT NUMBER: 133:117124

TITLE: Rapid identification of key amino-acid-DNA contacts through combinatorial peptide synthesis

AUTHOR(S): Winston, Rachel L.; Gottesfeld, Joel M.
CORPORATE SOURCE: Department of Molecular Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA

SOURCE: Chem. Biol. (**2000**), 7(4), 245-251
CODEN: CBOLE2; ISSN: 1074-5521
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Background: Basic helix-loop-helix (bHLH) transcription factors are characterized by a conserved four-helix bundle that recognizes a specific hexanucleotide DNA sequence in the major groove. Previous studies have shown that amino acids in the basic region make base-specific contacts, whereas the HLH region is responsible for dimerization. Structural data suggest that portions of the loop region may be proximal to the DNA; however, the role of the loop in DNA-binding affinity and specificity has not been investigated. Results: Protein-DNA recognition by the Drosophila bHLH transcription factor Deadpan was probed using combinatorial solid-phase peptide synthesis methods. A series of bHLH peptide libraries that modulate amino acid content and length in the loop region was screened with DNA and peptide affinity columns, and analyzed using matrix-assisted laser desorption ionization mass spectrometry (MALDI-MS). A functional bHLH peptide with reduced loop length was found, and Lys80 was unambiguously identified as the sole loop residue crit. for DNA binding. Unnatural amino acids were substituted at this position to assess contributions of the terminal amino group and the alkyl chain length to DNA-binding affinity and specificity. Conclusions: Using combinatorial solid-phase peptide synthesis methods and MALDI-MS, we were able to rapidly identify a key amino acid involved in DNA binding by a bHLH protein. Our approach provides a powerful alternative to current recombinant DNA methods to identify and probe the energetics of protein-DNA interactions.

REFERENCE COUNT: 18

REFERENCE(S):
(1) Anthony-Cahill, S; Science 1992, V255, P979 HCAPLUS
(3) Bier, E; Genes Dev 1992, V6, P2137 HCAPLUS
(4) Dawson, P; J Am Chem Soc 1997, V119, P7917 HCAPLUS
(5) Dawson, S; Mol Cell Biol 1995, V15, P6923 HCAPLUS
(6) Ellenberger, T; Genes Dev 1994, V8, P970 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:753035 HCAPLUS
DOCUMENT NUMBER: 131:356122

TITLE: A hepatocyte targeting polyethylene glycol-grafted

poly-L-lysine polymeric gene carrier
INVENTOR(S): Park, Jong Sang; Choi, Young-hun; Liu, Feng
PATENT ASSIGNEE(S): Expression Genetics, Inc., USA
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9959546	A1	19991125	WO 1999-US11147	19990520 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9941931	A1	19991206	AU 1999-41931	19990520 <--
US 6177274	B1	20010123	US 1999-315240	19990520
BR 9911062	A	20010206	BR 1999-11062	19990520
EP 1083882	A1	20010321	EP 1999-925694	19990520
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
FI 2000002539	A	20010119	FI 2000-2539	20001120

PRIORITY APPLN. INFO.: US 1998-86072 P 19980520
WO 1999-US11147 W 19990520

AB A compd. for polymeric targeted gene delivery carrier consisting of polyethylene glycol (PEG) grafted poly(L-lysine) (PLL) and a targeting moiety (TM), wherein at least one free amino function of the PLL is substituted with said PEG, at least one free amino function of the PLL is substituted with the TM, and the grafted PLL contains at least 50 % unsubstituted free amino function groups. TM is preferably lactose or galactose which are capable of specifically targeting a hepatoma cell or a liver cell. The new synthetic carriers with various substitution ratios of TM-PEG were characterized using NMR spectroscopy. The new polymeric gene carriers of this invention are capable of forming stable and sol. complexes with nucleic acids, which in turn are able to efficiently transform cells. PEG attached to the PLL gives better soly. properties to the gene/carrier complex and improved transfection efficiency without considerable cytotoxicity. Methods of prepg. and using the TM-PEG-PLL as polymeric gene carriers to efficiently transfect cells are disclosed.

REFERENCE COUNT: 4
REFERENCE(S):
(1) Desai; US 5578442 A 1996 HCAPLUS
(2) Hubbell; US 5567440 A 1996 HCAPLUS
(3) Tullis; US 4904582 A 1990 HCAPLUS
(4) Yau; US 5541287 A 1996 HCAPLUS

L10 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:685055 HCAPLUS
DOCUMENT NUMBER: 132:18612
TITLE: Mimicry of erythropoietin by a nonpeptide molecule
AUTHOR(S): Qureshi, Sajjad A.; Kim, Ronald M.; Konteatis, Zenon; Biazzo, Dawn E.; Motamedi, Haideh; Rodrigues, Robert; Boice, Judith A.; Calaycay, Jimmy R.; Bednarek, Maria A.; Griffin, Patrick; Gao, Ying-Duo; Chapman, Kevin; Mark, David F.
CORPORATE SOURCE: Merck Research Laboratories, Rahway, NJ, 07065, USA
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (**1999**), 96(21), 12156-12161
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Erythropoietin (EPO) controls the proliferation and differentiation of erythroid progenitor cells into red blood cells. EPO induces these

effects by dimerization of the EPO receptors (EPOR) present on these cells. To discover nonpeptide mols. capable of mimicking the effects of EPO, the authors identified a small mol. capable of binding to one chain of EPOR and used it to synthesize mols. capable of inducing dimerization of the EPOR. The authors first identified compd. 1 (N-3-[2-(4-biphenyl)-6-chloro-5-methyl]indolyl-acetyl-**L-lysine** Me ester) by screening the inhouse chem. collection for inhibitors of EPO binding to human EPOR and then prepd. compd. 5, which contains eight copies of compd. 1 held together by a central core. Although both compds. inhibited EPO binding of EPOR, only compd. 5 induced dimerization of sol. EPOR. Binding of EPO to its receptor in cells results in activation of many intracellular signaling mols., including **transcription factors** like signal transducer and activator of **transcription** (STAT) proteins, leading to growth and differentiation of these cells. Consistent with its ability to induce dimerization of EPOR in soln., compd. 5 exhibited much of the same biol. activities as EPO, such as (i) the activation of a STAT-dependent luciferase reporter gene in BAF3 cells expressing human EPOR, (ii) supporting the proliferation of several tumor cell lines expressing the human or mouse EPOR, and (iii) the in vitro differentiation of human progenitor cells into colonies of erythrocytic lineage. These data demonstrate that a nonpeptide mol. is capable of inducing EPOR dimerization and mimicking the biol. activities of EPO.

REFERENCE COUNT: 44

REFERENCE(S): (2) Azam, M; EMBO J 1995, V14, P1402 HCAPLUS
(3) Barber, D; Blood 1997, V89, P3166 HCAPLUS
(4) Brox, A; Kidney Int 1996, V50, P937 HCAPLUS
(5) Chiba, S; Blood 1991, V78, P2261 HCAPLUS
(6) Darnell, J; Science 1997, V277, P1630 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:162021 HCAPLUS
DOCUMENT NUMBER: 131:14765

TITLE: Assembly requirements of PU.1-Pip (IRF-4) activator complexes: inhibiting function in vivo using fused dimers

AUTHOR(S): Brass, Abraham L.; Zhu, Anne Q.; Singh, Harinder
CORPORATE SOURCE: Howard Hughes Medical Institute, The University of Chicago, Chicago, IL, 60637, USA

SOURCE: EMBO J. (**1999**), 18(4), 977-991
CODEN: EMJODG; ISSN: 0261-4189
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Gene expression in higher eukaryotes appears to be **regulated** by specific combinations of **transcription factors** binding to **regulatory** sequences. The Ets **factor** PU.1 and the IRF protein Pip (IRF-4) represent a pair of interacting **transcription factors** implicated in **regulating** B cell-specific gene expression. Pip is recruited to its binding site on DNA by phosphorylated PU.1. PU.1-Pip interaction is shown to be template directed and involves two distinct protein-protein interaction surfaces: (i) the ets and IRF DNA-binding domains; and (ii) the phosphorylated PEST region of PU.1 and a **lysine**-requiring putative .alpha.-helix in Pip. Thus, a coordinated set of protein-protein and protein-DNA contacts are essential for PU.1-Pip ternary complex assembly. To analyze the function of these **factors** in vivo, we engineered chimeric repressors contg. the ets and IRF DNA-binding domains connected by a flexible POU domain linker. When stably expressed, the wild-type fused dimer strongly repressed the expression of a rearranged Ig .lambda. gene, thereby establishing the functional importance of PU.1-Pip complexes in B cell gene expression. Comparative anal. of the wild-type dimer with a series of mutant dimers distinguished a gene **regulated** by PU.1 and Pip from one **regulated** by PU.1 alone. This strategy should prove generally useful in analyzing the function of interacting **transcription factors** in vivo, and for identifying novel genes **regulated** by such complexes.

REFERENCE COUNT: 56

REFERENCE(S): (1) Au, W; Proc Natl Acad Sci USA 1995, V92, P11657 HCAPLUS
(2) Bender, A; Cell 1987, V50, P681 HCAPLUS
(3) Brass, A; Genes Dev 1996, V10, P2335 HCAPLUS
(5) Carey, M; Cell 1998, V92, P5 HCAPLUS
(6) Chen, L; Curr Biol 1995, V5, P882 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:153983 HCAPLUS
DOCUMENT NUMBER: 130:308285
TITLE: A novel H2A/H4 nucleosomal histone acetyltransferase in Tetrahymena thermophila
AUTHOR(S): Ohba, Reiko; Steger, David J.; Brownell, James E.; Mizzen, Craig A.; Cook, Richard G.; Cote, Jacques; Workman, Jerry L.; Allis, C. David
CORPORATE SOURCE: Department of Biochemistry and Molecular Genetics, University of Virginia Health Sciences Center, Charlottesville, VA, 22908, USA
SOURCE: Mol. Cell. Biol. (**1999**), 19(3), 2061-2068
CODEN: MCEBD4; ISSN: 0270-7306
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Recently, we reported the identification of a 55-kDa polypeptide (p55) from Tetrahymena macronuclei as a catalytic subunit of a **transcription**-assocd. histone acetyltransferase (HAT A). Extensive homol. between p55 and Gcn5p, a component of the SAGA and ADA **transcriptional** coactivator complexes in budding yeast, suggests an immediate link between the **regulation** of chromatin structure and **transcriptional** output. Here we report the characterization of a second **transcription**-assocd. HAT activity from Tetrahymena macronuclei. This novel activity is distinct from complexes contg. p55 and putative ciliate SAGA and ADA components and shares several characteristics with NuA4 (for nucleosomal H2A/H4), a 1.8-MDa, Gcn5p-independent HAT complex recently described in yeast. A key feature of both the NuA4 and Tetrahymena activities is their acetylation site specificity for **lysines** 5, 8, 12, and 16 of H4 and **lysines** 5 and 9 of H2A in nucleosomal substrates, patterns that are distinct from those of known Gcn5p family members. Moreover, like NuA4, the Tetrahymena activity is capable of activating **transcription** from nucleosomal templates in vitro in an acetyl CoA-dependent fashion. Unlike NuA4, however, sucrose gradient analyses of the ciliate enzyme, following sequential denaturation and renaturation, est. the mol. size of the catalytically active subunit to be .apprx.80 kDa, consistent with the notion that a single polypeptide or a stable subcomplex is sufficient for this H2A/H4 nucleosomal HAT activity. Together, these data document the importance of this novel HAT activity for **transcriptional** activation from chromatin templates and suggest that a second catalytic HAT subunit, in addn. to p55/Gcn5p, is conserved between yeast and Tetrahymena.
REFERENCE COUNT: 51
REFERENCE(S): (1) Bannister, A; Nature 1996, V384, P641 HCAPLUS
(2) Belikoff, E; J Biol Chem 1980, V255, P11448 HCAPLUS
(3) Borrow, J; Nat Genet 1996, V14, P33 HCAPLUS
(4) Brownell, J; Cell 1996, V84, P843 HCAPLUS
(5) Brownell, J; Curr Opin Genet Dev 1996, V6, P176 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:620122 HCAPLUS
DOCUMENT NUMBER: 129:327557
TITLE: Biochemical methods for analysis of histone deacetylases
AUTHOR(S): Kolle, Doris; Brosch, Gerald; Lechner, Thomas; Lusser, Alexandra; Loidl, Peter
CORPORATE SOURCE: Department of Microbiology, Medical School, University

of Innsbruck, Innsbruck, A-6020, Austria
SOURCE: Methods (Orlando, Fla.) (**1998**), 15(4), 323-331
CODEN: MTHDE9; ISSN: 1046-2023
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Specific **lysine** residues in the N-terminal extensions of core histones can be posttranslationally modified by acetylation of the .epsilon.-amino group. The dynamic equil. of core histone acetylation is established and maintained by histone acetyltransferases and deacetylases. Both enzymes exist as multiple enzyme forms. Histone acetyltransferases and deacetylases have recently been identified as **transcriptional regulators** as well as nucleolar phosphoproteins, and have therefore attracted considerable research interest. Anal. of the functional significance of histone deacetylases for nuclear processes in certain cases demands the sepn. and biochem. anal. of different members of the histone deacetylase families. We have characterized three different histones deacetylases in maize embryos and subsequently purified these enzymes to homogeneity. Here we describe methods for extn., enzymic assay, chromatog. and electrophoretic sepn., and purifn. of deacetylases. A novel one-step procedure for large-scale prepn. of individual histones and their acetylated isoforms for the anal. of substrate and site specificity of the enzymes is presented. (c) 1998 Academic Press.

L10 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:620121 HCAPLUS
DOCUMENT NUMBER: 129:326663
TITLE: Identification and analysis of yeast nucleosomal histone acetyltransferase complexes
AUTHOR(S): Eberharter, Anton; John, Sam; Grant, Patrick A.; Utley, Rhea T.; Workman, Jerry L.
CORPORATE SOURCE: Howard Hughes Medical Institute, Department of Biochemistry and Molecular Biology, and The Center for Gene Regulation, 306 Althouse Laboratory, Pennsylvania State University, University Park, PA, 16802-4500, USA
SOURCE: Methods (Orlando, Fla.) (**1998**), 15(4), 315-321
CODEN: MTHDE9; ISSN: 1046-2023
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Many studies have linked acetylation of **lysine** residues on the amino-terminal tails of the core histones to **transcriptional** activity of cellular chromatin. New insights into this field were gained on the identification of the first nuclear, type A histone acetyltransferase (HAT). The yeast **transcriptional** adaptor protein Gcn5 was identified as a nuclear HAT and thus provided a direct link between pathways of **transcriptional** activation and histone acetylation. However, while recombinant Gcn5 can efficiently acetylate free histone H3 and, to a lesser extent, H4 it is unable to acetylate nucleosomal histones. It is therefore very likely that addnl. proteins are required for Gcn5-mediated acetylation of chromosomal histones. The authors have recently shown that Gcn5 is the catalytic subunit of two high-mol.-wt. histone acetyltransferase complexes in yeast. In addn. to the Gcn5-contg. ADA and SAGA HAT complexes the authors have identified two other HAT complexes in yeast. These are called NuA3 and NuA4 for their predominant specificity to acetylate histones H3 and H4, resp. Here the authors describe the identification and characterization of four native nuclear high-mol.-wt. HAT complexes in Saccharomyces cerevisiae. These purified HATs can be used in a variety of functional assays to further address questions of how acetylation has an impact on **transcriptional regulation**. (c) 1998 Academic Press.

L10 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:590243 HCAPLUS
DOCUMENT NUMBER: 129:299417
TITLE: Structure-based design of ligands for protein basic domains: application to the HIV-1 Tat protein

AUTHOR(S): Filikov, Anton V.; James, Thomas L.
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of California, San Francisco, CA, 94143-0446, USA
SOURCE: J. Comput.-Aided Mol. Des. (**1998**), 12(3), 229-240
CODEN: JCADEQ; ISSN: 0920-654X
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A methodol. has been developed for designing ligands to bind a flexible basic protein domain where the structure of the domain is essentially known. It is based on an empirical binding free energy function developed for highly charged complexes and on Monte Carlo simulations in internal coordinates with both the ligand and the receptor being flexible. HIV-1 encodes a transactivating **regulatory** protein called Tat. Binding of the basic domain of Tat to TAR RNA is required for efficient **transcription** of the viral genome. The structure of a biol. active peptide contg. the Tat basic RNA-binding domain is available from NMR studies. The goal of the current project is to design a ligand which will bind to that basic domain and potentially inhibit the TAR-Tat interaction. The basic domain contains six arginine and two **lysine** residues. Our strategy was to design a ligand for arginine first and then a superligand for the basic domain by joining arginine ligands with a linker. Several possible arginine ligands were obtained by searching the Available Chems. Directory with DOCK 3.5 software. Phytic acid, which can potentially bind multiple arginines, was chosen as a building block for the superligand. Calorimetric binding studies of several compds. to methylguanidine and Arg-/Lys-contg. peptides were performed. The data were used to develop an empirical binding free energy function for prediction of affinity of the ligands for the Tat basic domain. Modeling of the conformations of the complexes with both the superligand and the basic domain being flexible has been carried out via Biased Probability Monte Carlo (BPMC) simulations in internal coordinates (ICM 2.6 suite of programs). The simulations used parameters to ensure correct folding, i.e., consistent with the exptl. NMR structure of a 25-residue Tat peptide, from a random starting conformation. Superligands for the basic domain were designed by joining together two mols. of phytic acid with peptidic and peptidomimetic linkers. The linkers were refined by varying the length and side chains of the linking residues, carrying out BPMC simulations, and evaluation of the binding free energy for the best energy conformation. The dissocn. const. of the best ligand designed is estd. to be in the low- to mid-nanomolar range.

L10 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:650435 HCAPLUS
DOCUMENT NUMBER: 127:304775
TITLE: Transcription factor E2A-ubiquitinating enzyme UBCE2A, recombinant cDNA sequences, and their use in inhibiting cell proliferation
INVENTOR(S): Kho, Choon-joo; Lee, Mu-En; Haber, Edgar
PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9735961	A1	19971002	WO 1997-US5337	19970328 <--

W: CA, JP, MX
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRIORITY APPLN. INFO.: US 1996-14388 19960328

AB A polypeptide termed UBCE2A is provided that catalyzes the covalent attachment of ubiquitin to **transcription factor** E2A. The ubiquitin-conjugating enzyme is cloned by the yeast 2-hybrid interaction trap system from a rat aorta cDNA expression library, and the rat cDNA sequence encodes a 158-amino-acid protein. UBCE2A participates

in a natural cellular mechanism for **regulating** the level of **transcription factor** E2A (E12/E47 subunits) within a cells, such that it binds to and ubiquintinates E2A, thus targeting it for destruction by the ubiquitin-proteasome pathway. Furthermore, down-**regulation** of E2A by the ubiquitin-proteasome pathway is required for cell cycle progression. Therefore, cellular proliferation in vivo can be **regulated** by modulating the UBCE2A-mediated degrdn. of E2A by any of at least 4 ways: (1) proteasome inhibitors; (2) anti-UBCE2A antibodies; (3) UBCE2A antisense oligonucleotides; and (4) mutant E2A proteins that lack a UBCE2A binding site or lack the **lysine** residues which are targets for ubiquitination.

L10 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:625606 HCAPLUS
DOCUMENT NUMBER: 127:273877
TITLE: viral cis-acting post-transcriptional regulatory sequences to increase expression of intronless genes containing near-consensus splice sites and use for gene therapy
INVENTOR(S): Ill, Charles R.; Bidlingmaier, Scott
PATENT ASSIGNEE(S): Immune Response Corporation, USA; Ill, Charles R.; Bidlingmaier, Scott
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9733994	A1	19970918	WO 1997-US3561	19970310 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5744326	A	19980428	US 1996-683839	19960311 <--
CA 2248539	AA	19970918	CA 1997-2248539	19970310 <--
AU 9720717	A1	19971001	AU 1997-20717	19970310 <--
AU 715567	B2	20000203		
EP 888451	A1	19990107	EP 1997-908930	19970310 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000506388	T2	20000530	JP 1997-532696	19970310 <--

PRIORITY APPLN. INFO.: US 1996-683839 19960311
WO 1997-US3561 19970310

AB Expression vectors are disclosed comprising intronless genes contg. one or more near consensus splice sequences and one or more copies of a viral (cis)-acting post-transcriptional regulatory element (PRE) which is transcribed along with the gene and causes export of the gene transcript from the nucleus into the cytoplasm of the cell. In a preferred embodiment, the vectors are targeted for delivery to specific cells in the form of a mol. complex made up of the plasmid releasably linked to a nucleic acid binding agent and a ligand which binds to a component on the surface of a cell. Use of viral (cis)-acting post-transcriptional regulatory elements as disclosed can increase expression of intronless genes with near-consensus splice sites. This invention is exemplified by an expression vector contg. the PRE of hepatitis B virus inserted downstream of the translation stop codon of blood-coagulation factor VIII B-domain-deleted cDNA. The amt. of factor VIII expressed by transfected human cells was increased by the PRE sequence in plasmid vectors. Plasmid vectors were also constructed for expressing factor VIII after targeting plasmid vectors for delivery to liver. Mice injected with pMTF8PREIVSGHpAE/O plasmid complex demonstrated significant factor VIII expression in the liver for up to 10 days after injection. While 5 ng/mL

factor VIII is required for therapeutic effects, the av. levels of factor VIII measured at days 1, 4, 7, and 10 were 82.4, 72.3, 47.5, and 50.2 ng/mL of blood, resp.

L10 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:608281 HCAPLUS
DOCUMENT NUMBER: 127:316002
TITLE: Covalent binding of DNA duplexes containing acylphosphate or substituted pyrophosphate with transcription factor NF-.kappa.B
AUTHOR(S): Ivanovskaya, M. G.; Kozlov, I. A.; Kubareva, E. A.; Taran, E. A.; Serazev, T. V.; Shabarova, Z. A.
CORPORATE SOURCE: Belozersky Institute of Physico-Chemical Biology and Department of Chemistry, Moscow State University, Moscow, 119899, Russia
SOURCE: Mol. Biol. (Transl. of Mol. Biol. (Moscow)) (**1997**), 31(3), 362-369
CODEN: MOLBBJ; ISSN: 0026-8933
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A study was made of DNA duplexes contg. the transcription factor NF-.kappa.B recognition site in which a phosphodiester group is replaced by a reactive trisubstituted pyrophosphate or acylphosphate. It is shown that such duplexes not only form specific complexes with the NF-.kappa.B p50 subunit but also covalently bind to it. The oligonucleotides with internucleotide acylphosphate act as acylating reagents, which for the first time was used for covalent binding to a protein, whereas trisubstituted pyrophosphates carry out phosphorylation. These reagents display specificity in the reaction with human p50. Their selective interaction with NF-.kappa.B in the cell makes them promising as inhibitors of transcription processes involving this factor.

L10 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:533233 HCAPLUS
DOCUMENT NUMBER: 127:220491
TITLE: Design, syntheses, and evaluations of bicyclomycin-based rho inactivators
AUTHOR(S): Cho, Hangjin; Park, Hyeung-geun; Zhang, Xiangdong; Riba, Isabel; Gaskell, Simon J.; Widger, William R.; Kohn, Harold
CORPORATE SOURCE: Dep. Chem., Univ. Houston, Houston, TX, 77204-5641, USA
SOURCE: J. Org. Chem. (**1997**), 62(16), 5432-5440
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The com. antibiotic bicyclomycin (I) has been shown to target the essential **transcriptional** termination **factor** rho in Escherichia coli. Little is known, however, about the bicyclomycin binding site in rho. A recent structure-activity relationship study permitted us to design modified bicyclomycins that may irreversibly inactivate rho. The four compds. selected were C(5a)-(4-azidoanilino)dihydrobicyclomycin (II), C(5a)-(3-formylanilino)dihydrobicyclomycin (III), C(5)-norbicyclomycin C(5)-O-(4-azidobenzoate)(IV), and C(5)-norbicyclomycin C(5)-O-(3-formylbenzoate) (V). In each of these compds. the inactivating unit was placed at the C(5)-C(5a) site in bicyclomycin. In compds. II and IV an aryl azide moiety was used as a photoaffinity label whereas in III and V an aryl aldehyde group was employed as a reductive amination probe. The synthesis and spectral properties of II-V are described. Chem. studies demonstrated that II and III were stable in D2O and CD3OD (room temp., 7 d), while IV and V underwent significant change within 1 d. Biochem. investigations showed that II and III retained appreciable inhibitory activities in rho-dependent ATPase and **transcription** termination assays. In the ATPase assay, I50 values for IV and V were >400 and 225 .mu.M, resp. In the **transcription** termination assay, compds. I, II, and III all prevented (.gtoreq.97%) the prodn. of

rho-dependent **transcripts** at 40 .mu.M, whereas little (.ltoreq.15%) inhibition of **transcription** termination was obsd. for IV and V at this concn. Antimicrobial evaluation of II-V showed that none of the four compds. exhibited antibiotic activity at 32 mg/mL or less against W3350 E. coli. The combined chem. and biochem. studies led to our further evaluation of II and III. Photochem. irradn. (254 nm) of II in the presence of rho led to a 29-32% loss of rho ATPase activity. Attempts to confirm the irreversible adduction of II to rho by electrospray mass spectrometry were unsuccessful. No higher mol. wt. adducts were detected. Incubation of rho with III at room temp. (4 h) followed by the addn. of NaBH4 led to significant losses (>62%) of rho ATPase activity. Analyses of the III-rho modified adduct showed appreciable levels of adduction (.apprx.40%). Mass spectrometric analyses indicated a mol. wt. for the adduct of approx. 47 410, consistent with a modification of a rho **lysine** residue by III. Compd. III was selected for addnl. studies.

L10 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:459454 HCAPLUS
DOCUMENT NUMBER: 127:157357
TITLE: Gene transfer using a novel fusion protein, GAL4/invasin
AUTHOR(S): Paul, Ralph W.; Weisser, Karen E.; Loomis, Aaron; Sloane, David L.; Lafoe, Dan; Atkinson, E. Morrey; Overell, Robert W.
CORPORATE SOURCE: Department of Molecular Biology, Targeted Genetics Corporation, Seattle, WA, 98101, USA
SOURCE: Hum. Gene Ther. (**1997**), 8(10), 1253-1262
CODEN: HGTHE3; ISSN: 1043-0342
PUBLISHER: Liebert
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The delivery of DNA to target cells using simple, defined, nonviral systems has become an area of intense interest in gene therapy. We describe here the development and characterization of one such novel system. A recombinant, bifunctional, fusion protein was expressed and purified from Escherichia coli. This protein consists of the DNA-binding domain of the yeast **transcription factor** GAL4 fused to the cell binding, internalization domain of the Yersinia pseudotuberculosis inv gene product, invasin. This protein, GAL4/Inv, together with poly-**L-lysine**, formed complexes with a chloramphenicol acetyltransferase (CAT) reporter plasmid that contains eight repeats of the GAL4 consensus recognition sequence. These complexes were shown to transfect target cells in an invasin receptor-dependent manner, resulting in transient CAT expression. A simple, targeted DNA delivery vehicle, as we describe here, represents a viable approach to nonviral gene delivery.

L10 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:346063 HCAPLUS
DOCUMENT NUMBER: 125:3888
TITLE: Distinct Phosphate Backbone Contacts Revealed by Some Mutant Peptides of Zinc Finger Protein Sp1: Effect of Protein-Induced Bending on DNA Recognition
AUTHOR(S): Nagaoka, Makoto; Sugiura, Yukio
CORPORATE SOURCE: Institute for Chemical Research, Kyoto University, Uji, 611, Japan
SOURCE: Biochemistry (**1996**), 35(26), 8761-8768
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB By using some mutant peptides of **transcription factor** Sp1, phosphate backbone contacts with the DNA binding protein contg. three zinc fingers have been investigated by alkylation interference, circular permutation, DNase I footprinting, and methylation protection methods. The ethylation interference analyses of Sp1(R565S) and Sp1(K595S) mutants demonstrate that arginine at 565 position and **lysine** at 595 position interact with the phosphate between G(3) and G(4) and with the phosphate between G(9) and G(10) in GC-box DNA, resp. On the basis of the

exptl. results for Sp1(K535G), Sp1(537-623), and Sp1(530-623), **lysine** and glutamine at 535 and 536 positions have been clarified to be in contacts with phosphate between G(7) and G(8) and with phosphate outside GC-box, resp. In particular, glutamine at the N-terminal side of zinc finger 1 is a key amino acid residue to induce DNA bending and also participates in total base specificity of Sp1. The present study strongly indicates that (1) each zinc finger is not independent for the DNA interaction with Sp1 and (2) DNA base recognition of the zinc finger protein is influenced by local conformational change of DNA induced by the protein binding.

L10 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:198727 HCAPLUS
DOCUMENT NUMBER: 124:254113
TITLE: Purification and characterization of intact and truncated forms of the Escherichia coli biotin carboxyl carrier subunit of acetyl-CoA carboxylase
AUTHOR(S): Nenortas, Elizabeth; Beckett, Dorothy
CORPORATE SOURCE: Dep. Chem. Biochemistry, Univ. Maryland Baltimore County, Baltimore, MD, 21228, USA
SOURCE: J. Biol. Chem. (**1996**), 271(13), 7559-67
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Biotin biosynthesis and retention in Escherichia coli is **regulated** by the multifunctional protein, BirA. The protein acts as both the **transcriptional** repressor of the biotin biosynthetic operon and as a ligase for covalent attachment of biotin to a unique **lysine** residue of the biotin carboxyl carrier protein (BCCP) subunit of the acetyl-CoA carboxylase. Biotinyl-5'-AMP is the activated intermediate for the ligase reaction and the allosteric effector for DNA binding. The authors have purified and characterized apoBCCP and a truncated form contg. the COOH-terminal 87 residues (apoBCCP87). Mol. masses of the proteins measured using matrix-assisted laser desorption ionization time-of-flight mass spectrometry conformed to the expected values. The assembly states of apoBCCP and apoBCCP87 were detd. using sedimentation equil. ultracentrifugation. Nearly quant. enzymic transfer of biotin from BirA-biotinyl-5'-AMP to the apoBCCP forms was assessed using two methods, mass spectrometric anal. of acceptor proteins after incubation with BirA-bio-5'-AMP and a steady state fluorescence assay. The BirA catalyzed rates of transfer of biotin from bio-5'-AMP to apoBCCP and apoBCCP87 were measured by stopped-flow fluorescence. Kinetic parameters estd. from these measurements indicate that the intact and truncated forms of the acceptor protein are functionally identical.

L10 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:670389 HCAPLUS
DOCUMENT NUMBER: 123:248051
TITLE: An aldose reductase homologous gene from barley: Regulation and function
AUTHOR(S): Roncarati, Renza; Salamini, Francesco; Bartels, Dorothea
CORPORATE SOURCE: Max Planck Institut fur Zuchtungsforschung, Cologne, D-50829, Germany
SOURCE: Plant J. (**1995**), 7(5), 809-22
CODEN: PLJUED; ISSN: 0960-7412
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The expression of a barley gene homologous to aldose reductase and aldehyde reductase is restricted to the embryo and temporally correlated with its acquisition of desiccation tolerance. In the work presented, two aspects of this barley gene were investigated: its **transcriptional regulation** and the initial characterization of the enzymic function. The **transcriptional regulation** of the gene was studied in transgenic tobacco by analyzing the expression of chimeric genes contg. 5' sequences of the barley gene **transcriptionally** fused to the GUS reporter gene. This functional anal. of the promoter revealed that a 1364 bp 5' fragment confers the appropriate pattern of expression to the reporter gene in tobacco and that a short promoter

fragment (-114 to +75) contg. the sequence TACGTGGC, homologous to plant G-box elements, is sufficient for developmental expression during embryogenesis. To investigate the enzymic properties of the gene product the wild-type protein and a mutant carrying a **lysine** 259 to methionine substitution were overexpressed in a procaryotic system and purified to homogeneity. The wild-type protein exhibits aldose reductase activity in the redn. of DL-glyceraldehyde and D-erythrose specifically using NADPH as co-**factor** whereas the mutant shows markedly reduced activity. However, the barley protein possesses some properties different to those of animal aldose and aldehyde reductases and its biol. target still needs to be identified.

L10 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:100564 HCAPLUS
DOCUMENT NUMBER: 116:100564
TITLE: Discrimination between related DNA sites by a single amino acid residue of Myc-related basic-helix-loop-helix proteins
AUTHOR(S): Dang, Chi V.; Dolde, Christine; Gillison, Maura L.; Kato, Gregory J.
CORPORATE SOURCE: Sch. Med., Johns Hopkins Univ., Baltimore, MD, 21205, USA
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (**1992**), 89(2), 599-602
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A yeast genetic system was developed to study how the basic regions of basic-helix-loop-helix (bHLH) proteins distinguish between related consensus bHLH binding sites, with nucleotide sequence CANNTG. The yeast bHLH protein CBF1 binds to the sequence CAC(A/G)TG found in the yeast centromere element CDE1 and in promoter regions of several yeast genes involved in methionine biosynthesis. Using a functional assay to rescue a mutant cbf1 yeast strain from methionine auxotrophy, it was detd. that the basic region of CBF1 could be replaced by the homologous region of either the vertebrate USF **transcription factor** or c-Myc, both of which bind CACGTG. The homologous region of the AP4 **transcription factor**, which recognizes the sequence CAGCTG, could not functionally replace the CBF1 basic region. However, only a single substitution, Met .fwdarw. Arg, in the AP4 basic region of the inactive chimera CBF-AP4 was sufficient to restore CBF1 function. In randomization expts., only arginine or **lysine** provided functional substitutions at the AP4 methionine position. The results suggest that this conserved arginine residue in the basic regions of Myc-related bHLH proteins discriminates between CAC(A/G)TG and related sites.

L10 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:114349 HCAPLUS
DOCUMENT NUMBER: 112:114349
TITLE: Juxtaposition of domains homologous to protein kinases and histidyl-tRNA synthetases in GCN2 protein suggests a mechanism for coupling GCN4 expression to amino acid availability
AUTHOR(S): Wek, Ronald C.; Jackson, Belinda M.; Hinnebusch, Alan G.
CORPORATE SOURCE: Lab. Mol. Genet., Natl. Inst. Child Health Hum. Dev., Bethesda, MD, 20892, USA
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (**1989**), 86(12), 4579-83
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The GCN2 protein of Saccharomyces cerevisiae stimulates the expression of amino acid biosynthetic genes under conditions of amino acid starvation by derepressing GCN4, a **transcriptional** activator of these genes. GCN2 contains sequences homologous to the catalytic domain of protein kinases. Substitution of a highly conserved **lysine** in the presumed ATP-binding site of this domain impairs the derepression of

histidine biosynthetic genes under GCN4 control. This result supports the idea that protein kinase activity is required for GCN2 pos. **regulatory** function. Detn. of the nucleotide sequence of the entire GCN2 complementation unit, and measurement of the mol. wt. of GCN2 protein expressed in vivo, indicate that GCN2 is a Mr .apprx.180,000 protein and contains a Mr .apprx.60,000 segment homologous to histidyl-tRNA synthetases (HisRSs) juxtaposed to the protein kinase domain. Several 2-codon insertion mutations in the HisRS-related coding sequences inactivate GCN2 **regulatory** function. Based on these results, it is proposed that the GCN2 HisRS domain responds to the presence of uncharged tRNA by activating the adjacent protein kinase moiety, thus providing a means of coupling GCN2-mediated derepression of GCN4 expression to the availability of amino acids.

L10 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:3671 HCAPLUS
DOCUMENT NUMBER: 110:3671
TITLE: Site-directed alterations in the ATP-binding domain of rho protein affect its activities as a termination factor
AUTHOR(S): Dombroski, Alicia J.; Brennan, Catherine A.; Spear, Peggy; Platt, Terry
CORPORATE SOURCE: Med. Cent., Univ. Rochester, Rochester, NY, 14642, USA
SOURCE: J. Biol. Chem. (**1988**), 263(35), 18802-9
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Oligonucleotide site-directed mutagenesis was utilized to test the prediction that Escherichia coli rho **factor** has an ATP-binding domain sep. from its RNA-binding domain and similar to that of adenylate kinase. Single amino acid substitutions were generated in regions thought to be within the active site and catalytically important for the ATPase activity, changing **lysine** 181 and(or) **lysine** 184 to glutamine, and aspartate 265 to valine and asparagine. The altered proteins were purified and characterized in vitro for RNA- and ATP-binding ability, ATPase activity, helicase activity, and ability to catalyze **transcription** termination. The results indicate that (1) these amino acid alterations in the proposed ATP-binding domain do not interfere with RNA binding; (2) substitution of **lysine** 184 by glutamine actually improves the ATPase and related activities while the same substitution at **lysine** 181 reduces but does not eliminate activity; (3) the double mutation changing both **lysine** 181 and **lysine** 184 to glutamine eliminates ATPase activity; and (4) the aspartate at 265 is also required for ATP hydrolysis but not for ATP binding. These results are consistent with the proposal that the general tertiary structure of rho's ATP-binding domain is similar to that of adenylate kinase.

L10 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1987:593495 HCAPLUS
DOCUMENT NUMBER: 107:193495
TITLE: Hypusine formation in eukaryotic initiation factor 4D is not reversed when rates or specificity of protein synthesis is altered
AUTHOR(S): Gordon, Edys D.; Mora, Rene; Meredith, Stephen C.; Lindquist, Susan L.
CORPORATE SOURCE: Comm. Dev. Biol., Univ. Chicago, Chicago, IL, 60637, USA
SOURCE: J. Biol. Chem. (**1987**), 262(34), 16590-5
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Advantage was taken of the drastic changes in translational specificity which occur in heat-shocked cells of Drosophila melanogaster and of the wide variations in translation rates which occur in response to alterations of growth media in the fungus Saccharomyces cerevisiae to investigate the relationship between the intracellular level and state of modification of the hypusine-contg. protein eukaryotic initiation **factor** 4D and the rate and specificity of translation. It was

also studied whether the hypusine residue in this protein might be subject to further modification or reversion to **lysine**. Under all conditions examd., the protein was remarkably long-lived. Furthermore, the hypusine persisted in this protein as hypusine, without further modification or reversion to **lysine**. Thus, no correlation was obsd. between the state of cellular translation and the persistence or reversal of this protein's modification. In addn., neither was the state of such key cellular processes as DNA replication, RNA **transcription**, or carbohydrate metab. so correlated.

L10 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1985:216307 HCAPLUS
DOCUMENT NUMBER: 102:216307
TITLE: Hybrid DNA synthesis of mature growth hormone releasing factor
INVENTOR(S): Barr, Philip J.; Brake, Anthony J.; Mullenbach, Guy T.
PATENT ASSIGNEE(S): Chiron Corp., USA
SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 129073	A1	19841227	EP 1984-105666	19840518 <--
EP 129073	B1	19910306		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 59227899	A2	19841221	JP 1984-93070	19840511 <--
AT 61405	E	19910315	AT 1984-105666	19840518 <--

PRIORITY APPLN. INFO.: US 1983-497776 19830525
EP 1984-105666 19840518

AB Human growth hormone-releasing **factor** [9034-39-3] - specifying DNA is cloned in Saccharomyces cerevisiae in phase with a yeast secretory leader and processing signals for subsequent cleavage and removal of the N-terminal peptide. Thus, the DNA sequence encoding human growth hormone-releasing **factor** 40 (GRF-40) was synthesized, a linker contg. GATAAG for arginine and **lysine** was joined to the gene, and the sequence was ligated to HindIII-SalI fragments of plasmid pAB113 which contains a 1.8-kilobase EcoRI fragment of the yeast .alpha.-**factor** gene. The recombinant DNA was used to transform Escherichia coli and plasmid pAB113/GRF 40.1, contg. GRF-40-encoding DNA was recovered from a transformant. EcoRI-BamHI fragments of pAB113/GRF40.1 were ligated to plasmid pC1/1 contg. plasmid pBR322. The recombinant DNA was used to transform E. coli, ampicillin-resistant transformants were selected, and plasmid pC1/1/GRF40.1/6 contg. a yeast promoter, **transcription** initiation site, yeast .alpha.-**factor** leader, processing signal (DNA encoding arginine and **lysine**), the GRF-40 gene, a **transcription** terminator, and a yeast replication system was used to transform yeast AB103 cells. Plasmid pC1/1/GRF40.1/6 gave a yield of 2-5 mg/mL GRF-40 and 90% of the proteins had glutamic acid-alanine termini, i.e., they were properly processed to mature protein.

L10 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1982:610866 HCAPLUS
DOCUMENT NUMBER: 97:210866
TITLE: Purification and properties of the biotin repressor: a bifunctional protein
AUTHOR(S): Eisenberg, Max A.; Prakash, Om; Hsiung, Shu Chi
CORPORATE SOURCE: Coll. Physicians Surg., Columbia Univ., New York, NY, 10032, USA
SOURCE: J. Biol. Chem. (**1982**), 257(24), 15167-73
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Definitive evidence is presented for the bifunctional nature of the biotin repressor protein which possesses both **regulatory** and enzymic

activities. The repressor protein can activate biotin in the presence of ATP to form biotinyl-5'-adenylate, the corepressor which remains tightly bound to the repressor protein. This complex can either bind to the operator site and inhibit **transcription** or transfer the biotinyl moiety to a **lysine** residue of the apoenzyme of acetyl-CoA carboxylase. The 2 activities were coincident throughout a purifn. procedure which resulted in a 3500-fold increase in activity. Gel electrophoresis of the purified prepn., under native or denaturing conditions, showed 3 proteins with the activity corresponding to the major protein band of apparent mol. wt. 34,000. On gel exclusion chromatog., the activity was also assocd. with a protein of mol. wt. 37,000-44,000, indicating the protein is monomeric. The occasional appearance of multiple bands with biol. activity in the native gels suggests that the repressor protein can also exist in multimeric forms. On chromatofocusing, the repressor activity and the holoenzyme synthetase activity were coincidental, with the peak of activity at pH 7.2, the isoelec. point. Only a single protein band with mol. wt. 34,000 was obsd. on SDS gel electrophoresis of all fractions showing activity.

L10 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1972:524687 HCAPLUS
DOCUMENT NUMBER: 77:124687
TITLE: Regulation of amino acid biosynthesis and industrial production of amino acids
AUTHOR(S): Huetter, R.
CORPORATE SOURCE: Inst. Microbiol., Swiss Fed. Inst. Technol., Zurich, Switz.
SOURCE: Radiat. Radioisotop. Ind. Microorganisms, Proc. Symp. (**1971**), 169-79. IAEA: Vienna, Austria.
CODEN: 25OTAO
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB Recent ideas on the mol. **regulation** of amino acid biosynthetic enzymes are reviewed and discussed: **regulation** in branched pathways, the functioning of enzyme synthesis under derepressed conditions, the question of coordinacy vs. noncoordinacy of enzyme synthesis, the mode of **regulation** (translational or **transcriptional**). Three industrial processes of amino acid production were analyzed with respect to their **regulatory** properties: the production of glutamic acid and **lysine** by Corynebacterium glutamicum, and of tryptophan by Hansenula anomala. It is common to these 3 processes that crit. **regulatory** blocks can be recognized and that they have to be eliminated by mutation, circumvented by tricks, or bypassed by feeding precursors posterior to the blocks.

Search Results -

Terms	Documents
l11 and l6	18

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Refine Search: `l11 and l6` Clear

Search History

Today's Date: 12/20/2001

DB Name	Query	Hit Count	Set Name
USPT,PGPB	l11 and l6	18	L13
USPT,PGPB	l11 and lysr1	0	L12
USPT,PGPB	l10 and @ad<20000810	23	L11
USPT,PGPB	(nucleotide or polynucleotide or nucleic acid) and l9	23	L10
USPT,PGPB	l8 and (factor or regulat$7)	23	L9
USPT,PGPB	l7 and lysine and transcript$7	24	L8
USPT,PGPB	Coryneform bacteria or Coryneform	331	L7
USPT,PGPB	l5 or l4 or l3 or l2 or l1	17266	L6
USPT,PGPB	(((536/23.1)!.CCLS.))	6031	L5
USPT,PGPB	(((435/320.1)!.CCLS.))	10256	L4
USPT,PGPB	(((435/252.3)!.CCLS.))	5106	L3
USPT,PGPB	(((435/252.1)!.CCLS.))	1289	L2
USPT,PGPB	((435/69.1)!.CCLS.)	6885	L1

Search Results - Record(s) 1 through 23 of 23 returned.

1. Document ID: US 6255086 B1

L11: Entry 1 of 23 File: USPT Jul 3, 2001

US-PAT-NO: 6255086
DOCUMENT-IDENTIFIER: US 6255086 B1

TITLE: Carbamoyl-phosphate synthetase gene of coryneform bacteria and method for producing L-arginine

DATE-ISSUED: July 3, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kuwabara; Yoko	Kawasaki			JPX
Hashiguchi; Kenichi	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX
Kurahashi; Osamu	Kawasaki			JPX
Mori; Yukiko	Kawasaki			JPX
Ito; Hisao	Kawasaki			JPX

US-CL-CURRENT: 435/114; 435/252.32, 435/320.1, 435/6

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc | Image

2. Document ID: US 6171833 B1

L11: Entry 2 of 23 File: USPT Jan 9, 2001

US-PAT-NO: 6171833
DOCUMENT-IDENTIFIER: US 6171833 B1

TITLE: Pyruvate carboxylase from corynebacterium glutamicum

DATE-ISSUED: January 9, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sinskey; Anthony J.	Boston	MA		
Lessard; Philip A.	Framingham	MA		
Willis; Laura B.	Cambridge	MA		

US-CL-CURRENT: 435/183; 435/252.3, 435/320.1, 435/325, 436/6, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc | Image

3. Document ID: US 6156532 A

L11: Entry 3 of 23 File: USPT Dec 5, 2000

US-PAT-NO: 6156532
DOCUMENT-IDENTIFIER: US 6156532 A

TITLE: Stress-resistant microorganism and method of producing fermentative product

DATE-ISSUED: December 5, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kimura; Eiichiro	Kawasaki			JPX
Kikuchi; Yoshimi	Kawasaki			JPX
Kawahara; Yoshio	Kawasaki			JPX
Goto; Shinya	Kawasaki			JPX
Kurahashi; Osamu	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX

US-CL-CURRENT: 435/41; 435/128, 435/132, 435/170, 435/171

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 6040160 A

L11: Entry 4 of 23 File: USPT Mar 21, 2000

US-PAT-NO: 6040160
DOCUMENT-IDENTIFIER: US 6040160 A

TITLE: Method of producing L-lysine by fermentation

DATE-ISSUED: March 21, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kojima; Hiroyuki	Kawasaki			JPX
Ogawa; Yuri	Kawasaki			JPX
Kawamura; Kazue	Kawasaki			JPX
Sano; Konosuke	Kawasaki			JPX

US-CL-CURRENT: 435/115; 435/252.3, 435/254.11, 435/320.1, 435/325, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 6004773 A

L11: Entry 5 of 23 File: USPT Dec 21, 1999

US-PAT-NO: 6004773
DOCUMENT-IDENTIFIER: US 6004773 A

TITLE: Method for producing L-lysine

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Araki; Masayuki	Kawasaki			JPX
Sugimoto; Masakazu	Kawasaki			JPX
Yoshihara; Yasuhiko	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX

US-CL-CURRENT: 435/41; 435/106, 435/252.3, 435/252.32, 435/320.1, 435/69.1, 536/23.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 5977331 A

L11: Entry 6 of 23 File: USPT Nov 2, 1999

US-PAT-NO: 5977331
DOCUMENT-IDENTIFIER: US 5977331 A

TITLE: .alpha.-Ketoglutarate dehydrogenase gene

DATE-ISSUED: November 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Asakura; Yoko	Kawasaki			JPX
Usuda; Yoshihiro	Kawasaki			JPX
Tsujimoto; Nobuharu	Kawasaki			JPX
Kimura; Eiichiro	Kawasaki			JPX
Abe; Chizu	Kawasaki			JPX
Kawahara; Yoshio	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX
Kurahashi; Osamu	Kawasaki			JPX

US-CL-CURRENT: 536/23.1; 435/106, 435/110, 435/252.32

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 5929221 A

L11: Entry 7 of 23 File: USPT Jul 27, 1999

US-PAT-NO: 5929221
DOCUMENT-IDENTIFIER: US 5929221 A

TITLE: Gene derived from coryneform bacteria and use thereof

DATE-ISSUED: July 27, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kimura; Eiichiro	Kawasaki			JPX
Abe; Chizu	Kawasaki			JPX
Kawahara; Yoshio	Kawasaki			JPX
Yoshihara; Yasuhiko	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX

US-CL-CURRENT: 536/23.1; 435/6, 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 8. Document ID: US 5919694 A

L11: Entry 8 of 23 File: USPT Jul 6, 1999

US-PAT-NO: 5919694
DOCUMENT-IDENTIFIER: US 5919694 A

TITLE: Mutant phosphoenolpyruvate carboxylase, its gene, and production method of amino acid

DATE-ISSUED: July 6, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sugimoto; Masakazu	Kawasaki			JPX
Suzuki; Tomoko	Kawasaki			JPX
Matsui; Hiroshi	Kawasaki			JPX
Izui; Katsura	Kyoto			JPX

US-CL-CURRENT: 435/252.33; 435/252.3, 435/252.32, 435/320.1, 536/23.1, 536/23.2, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 9. Document ID: US 5912161 A

L11: Entry 9 of 23 File: USPT Jun 15, 1999

US-PAT-NO: 5912161
DOCUMENT-IDENTIFIER: US 5912161 A

TITLE: Enzymes for the production of 2-keto-L-gulonic acid

DATE-ISSUED: June 15, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lazarus; Robert A.	Millbrae	CA		
Hurle; Mark	Bridgeport	PA		
Anderson; Stephen	Princeton	NJ		
Powers; David B.	Somerset	NJ		

US-CL-CURRENT: 435/252.3; 435/189, 435/190, 435/252.33, 435/320.1, 435/69.1, 536/23.2, 930/240

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 10. Document ID: US 5876983 A

L11: Entry 10 of 23 File: USPT Mar 2, 1999

US-PAT-NO: 5876983
DOCUMENT-IDENTIFIER: US 5876983 A

TITLE: Mutant phosphoenolpyruvate carboxylase, its gene, and production method of amino acid

DATE-ISSUED: March 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sugimoto; Masakazu	Kawasaki			JPX
Suzuki; Tomoko	Kawasaki			JPX
Matsui; Hiroshi	Kawasaki			JPX
Izui; Katsura	Kyoto			JPX

US-CL-CURRENT: 435/106; 435/107, 435/110, 435/113, 435/115, 435/116, 435/232, 435/252.3, 435/252.33, 435/320.1, 536/23.1 , 536/23.2, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 11. Document ID: US 5795761 A

L11: Entry 11 of 23 File: USPT Aug 18, 1998

US-PAT-NO: 5795761
DOCUMENT-IDENTIFIER: US 5795761 A

TITLE: Mutants of 2,5-diketo-D-gluconic acid (2,5-DKG) reductase A

DATE-ISSUED: August 18, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Powers; David B.	Somerset	NJ		
Anderson; Stephen	Princeton	NJ		

US-CL-CURRENT: 435/190; 435/138, 435/189, 435/69.1, 435/843, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 12. Document ID: US 5709862 A

L11: Entry 12 of 23 File: USPT Jan 20, 1998

US-PAT-NO: 5709862
DOCUMENT-IDENTIFIER: US 5709862 A

TITLE: Isolated protein from Eimeria useful as a cross species vaccine

DATE-ISSUED: January 20, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; David M.	Rockville	MD		
McCandliss; Russell J.	Gaithersburg	MD		
Strausberg; Susan Lee	Silver Spring	MD		
Strausberg; Robert L.	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Danforth; Harry D.	Severn	MD		
Augustine; Patricia C.	Laurel	MD		

US-CL-CURRENT: 424/191.1; 424/266.1, 424/267.1, 530/324, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 13. Document ID: US 5656485 A

L11: Entry 13 of 23 File: USPT Aug 12, 1997

US-PAT-NO: 5656485
DOCUMENT-IDENTIFIER: US 5656485 A

TITLE: Eimeria antigenic composition which elicits antibodies against avian coccidiosis

DATE-ISSUED: August 12, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacobson; James W.	Rockville	MD		
Strausberg; Robert L.	Silver Spring	MD		
Wilson; Susan D.	Rockville	MD		
Pope; Sharon H.	Gaithersburg	MD		
Strausberg; Susan Lee	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Augustine; Patricia C.	Laurel	MD		
Danforth; Harry D.	Severn	MD		

US-CL-CURRENT: 435/252.3; 424/191.1, 424/271.1, 435/320.1, 435/69.3, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 14. Document ID: US 5633154 A

L11: Entry 14 of 23 File: USPT May 27, 1997

US-PAT-NO: 5633154
DOCUMENT-IDENTIFIER: US 5633154 A

TITLE: Method for location of insertion elements

DATE-ISSUED: May 27, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schaefer; Andreas	Bielefeld			DEX
Seep-Feldhaus; Anna-Hildegard	Bielefeld			DEX
Jaeger; Wolfgang	Bielefeld			DEX
Kalinowski; Joern	Bielefeld			DEX
Wohlleben; Wolfgang	Bielefeld			DEX
Puehler; Alfred	Bielefeld			DEX

US-CL-CURRENT: 435/473; 435/477, 435/487, 435/843

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 15. Document ID: US 5597571 A

L11: Entry 15 of 23 File: USPT Jan 28, 1997

US-PAT-NO: 5597571
DOCUMENT-IDENTIFIER: US 5597571 A

TITLE: Eimeria antigenic composition which elicits antibodies against avian coccidiosis

DATE-ISSUED: January 28, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacobson; James W.	Rockville	MD		
Strausberg; Robert L.	Silver Spring	MD		
Wilson; Susan D.	Rockville	MD		
Pope; Sharon H.	Gaithersburg	MD		
Strausberg; Susan L.	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Augustine; Patricia C.	Laurel	MD		
Danforth; Harry D.	Severn	MD		

US-CL-CURRENT: 424/191.1; 424/271.1, 530/300, 530/324, 530/350, 930/210

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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16. Document ID: US 5583025 A

L11: Entry 16 of 23 File: USPT Dec 10, 1996

US-PAT-NO: 5583025
DOCUMENT-IDENTIFIER: US 5583025 A

TITLE: Enzymes for the production of 2-keto-L-gulonic acid

DATE-ISSUED: December 10, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lazarus; Robert A.	Millbrae	CA		
Hurle; Mark	Bridgeport	PA		
Anderson; Stephen	Princeton	NJ		
Powers; David B.	Somerset	NJ		

US-CL-CURRENT: 435/190; 435/189, 435/252.3, 435/252.33, 435/320.1, 435/69.1, 536/23.2, 930/240

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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17. Document ID: US 5498532 A

L11: Entry 17 of 23 File: USPT Mar 12, 1996

US-PAT-NO: 5498532
DOCUMENT-IDENTIFIER: US 5498532 A

TITLE: Process for producing amino acids

DATE-ISSUED: March 12, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Katsumata; Ryoichi	Machida			JPX
Kikuchi; Yasuhiro	Salt Lake City	UT		
Nakanishi; Keiko	Machida			JPX

US-CL-CURRENT: 435/106; 435/107, 435/108, 435/110, 435/114, 435/115, 435/116, 435/252.32, 435/320.1, 435/69.1, 435/849

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Drawi Desc | Image

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☐ 18. Document ID: US 5482709 A

L11: Entry 18 of 23 File: USPT Jan 9, 1996

US-PAT-NO: 5482709
DOCUMENT-IDENTIFIER: US 5482709 A

TITLE: Eimeria antigenic composition which elicits antibodies against avian coccidiosis

DATE-ISSUED: January 9, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacobson; James W.	Rockville	MD		
Strausberg; Robert L.	Silver Spring	MD		
Wilson; Susan D.	Rockville	MD		
Pope; Sharon H.	Gaithersburg	MD		
Strausberg; Susan L.	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Augustine; Patricia C.	Laurel	MD		
Danforth; Harry D.	Severn	MD		

US-CL-CURRENT: 424/191.1; 424/271.1, 435/7.22, 530/350, 530/822, 930/210

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Drawi Desc | Image

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☐ 19. Document ID: US 5380657 A

L11: Entry 19 of 23 File: USPT Jan 10, 1995

US-PAT-NO: 5380657
DOCUMENT-IDENTIFIER: US 5380657 A

TITLE: Method for isolation of insertion elements from coryneform bacteria

DATE-ISSUED: January 10, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schaefer; Andreas	Bielefeld			DEX
Seep-Feldhaus; Anna-Hildegard	Bielefeld			DEX
Jaeger; Wolfgang	Bielefeld			DEX
Kalinowski; Joern	Bielefeld			DEX
Wohlleben; Wolfgang	Bielefeld			DEX
Puehler; Alfred	Bielefeld			DEX

US-CL-CURRENT: 435/6; 435/252.32, 435/320.1, 435/473, 435/487

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 20. Document ID: US 5376544 A

L11: Entry 20 of 23 File: USPT Dec 27, 1994

US-PAT-NO: 5376544
DOCUMENT-IDENTIFIER: US 5376544 A

TITLE: Enzymes for the production of 2-keto-L-gulonic acid

DATE-ISSUED: December 27, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lazarus; Robert A.	Millbrae	CA		
Hurle; Mark	Bridgeport	PA		
Anderson; Stephen	Princeton	NJ		
Powers; David B.	Somerset	NJ		

US-CL-CURRENT: 435/190; 435/189, 435/69.1, 536/23.2, 930/240

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 21. Document ID: US 5374551 A

L11: Entry 21 of 23 File: USPT Dec 20, 1994

US-PAT-NO: 5374551
DOCUMENT-IDENTIFIER: US 5374551 A

TITLE: Methods for detection, identification and speciation of members of the genus Listeria

DATE-ISSUED: December 20, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bochner; Barry R.	Alameda	CA		

US-CL-CURRENT: 435/252.1; 435/244, 435/29, 435/34, 435/4

Full | Title | Citation | Front | Review | Classification | Date | Reference

KWIC | Draw Desc | Image

☐ 22. Document ID: US 5279960 A

L11: Entry 22 of 23 File: USPT Jan 18, 1994

US-PAT-NO: 5279960
DOCUMENT-IDENTIFIER: US 5279960 A

TITLE: 25 KD coccidial antigen of eimeria tenella

DATE-ISSUED: January 18, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; David M.	Rockville	MD		
McCandliss; Russell J.	Gaithersburg	MD		
Strausberg; Susan L.	Silver Spring	MD		
Strausberg; Robert L.	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Danforth; Harry D.	Severn	MD		
Augustine; Patricia C.	Laurel	MD		

US-CL-CURRENT: 435/243; 424/191.1, 424/271.1, 435/320.1, 435/69.3, 530/388.6, 530/822, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference

KWIC | Draw Desc | Image

☐ 23. Document ID: US 5273901 A

L11: Entry 23 of 23 File: USPT Dec 28, 1993

US-PAT-NO: 5273901
DOCUMENT-IDENTIFIER: US 5273901 A

TITLE: Genetically engineered coccidiosis sporozoite 21.5 Kb antigen, ac-6b

DATE-ISSUED: December 28, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacobson; James W.	Rockville	MD		
Strausberg; Robert L.	Silver Spring	MD		
Wilson; Susan D.	Rockville	MD		
Pope; Sharon H.	Gaithersburg	MD		
Strausberg; Susan L.	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Augustine; Patricia C.	Laurel	MD		
Danforth; Harry D.	Severn	MD		

US-CL-CURRENT: 435/243; 424/191.1, 424/267.1, 435/320.1, 435/6, 435/69.3, 530/388.6, 530/388.85, 536/23.7

Search Results - Record(s) 1 through 18 of 18 returned.

1. Document ID: US 6255086 B1

L13: Entry 1 of 18 File: USPT Jul 3, 2001

US-PAT-NO: 6255086
DOCUMENT-IDENTIFIER: US 6255086 B1

TITLE: Carbamoyl-phosphate synthetase gene of coryneform bacteria and method for producing L-arginine

DATE-ISSUED: July 3, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kuwabara; Yoko	Kawasaki			JPX
Hashiguchi; Kenichi	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX
Kurahashi; Osamu	Kawasaki			JPX
Mori; Yukiko	Kawasaki			JPX
Ito; Hisao	Kawasaki			JPX

US-CL-CURRENT: 435/114; 435/252.32, 435/320.1, 435/6

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

2. Document ID: US 6171833 B1

L13: Entry 2 of 18 File: USPT Jan 9, 2001

US-PAT-NO: 6171833
DOCUMENT-IDENTIFIER: US 6171833 B1

TITLE: Pyruvate carboxylase from corynebacterium glutamicum

DATE-ISSUED: January 9, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sinskey; Anthony J.	Boston	MA		
Lessard; Philip A.	Framingham	MA		
Willis; Laura B.	Cambridge	MA		

US-CL-CURRENT: 435/183; 435/252.3, 435/320.1, 435/325, 436/6, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

3. Document ID: US 6040160 A

L13: Entry 3 of 18 File: USPT Mar 21, 2000

US-PAT-NO: 6040160
DOCUMENT-IDENTIFIER: US 6040160 A

TITLE: Method of producing L-lysine by fermentation

DATE-ISSUED: March 21, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kojima; Hiroyuki	Kawasaki			JPX
Ogawa; Yuri	Kawasaki			JPX
Kawamura; Kazue	Kawasaki			JPX
Sano; Konosuke	Kawasaki			JPX

US-CL-CURRENT: 435/115; 435/252.3, 435/254.11, 435/320.1, 435/325, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

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4. Document ID: US 6004773 A

L13: Entry 4 of 18 File: USPT Dec 21, 1999

US-PAT-NO: 6004773
DOCUMENT-IDENTIFIER: US 6004773 A

TITLE: Method for producing L-lysine

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Araki; Masayuki	Kawasaki			JPX
Sugimoto; Masakazu	Kawasaki			JPX
Yoshihara; Yasuhiko	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX

US-CL-CURRENT: 435/41; 435/106, 435/252.3, 435/252.32, 435/320.1, 435/69.1, 536/23.1

Full | Title | Citation | Front | Review | Classification | Date | Reference KWIC | Draw Desc | Image

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5. Document ID: US 5977331 A

L13: Entry 5 of 18 File: USPT Nov 2, 1999

US-PAT-NO: 5977331
DOCUMENT-IDENTIFIER: US 5977331 A

TITLE: .alpha.-Ketoglutarate dehydrogenase gene

DATE-ISSUED: November 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Asakura; Yoko	Kawasaki			JPX
Usuda; Yoshihiro	Kawasaki			JPX
Tsujimoto; Nobuharu	Kawasaki			JPX
Kimura; Eiichiro	Kawasaki			JPX
Abe; Chizu	Kawasaki			JPX
Kawahara; Yoshio	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX
Kurahashi; Osamu	Kawasaki			JPX

US-CL-CURRENT: 536/23.1; 435/106, 435/110, 435/252.32

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 5929221 A

L13: Entry 6 of 18 File: USPT Jul 27, 1999

US-PAT-NO: 5929221
DOCUMENT-IDENTIFIER: US 5929221 A

TITLE: Gene derived from coryneform bacteria and use thereof

DATE-ISSUED: July 27, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kimura; Eiichiro	Kawasaki			JPX
Abe; Chizu	Kawasaki			JPX
Kawahara; Yoshio	Kawasaki			JPX
Yoshihara; Yasuhiko	Kawasaki			JPX
Nakamatsu; Tsuyoshi	Kawasaki			JPX

US-CL-CURRENT: 536/23.1; 435/6, 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 5919694 A

L13: Entry 7 of 18 File: USPT Jul 6, 1999

US-PAT-NO: 5919694
DOCUMENT-IDENTIFIER: US 5919694 A

TITLE: Mutant phosphoenolpyruvate carboxylase, its gene, and production method of amino acid

DATE-ISSUED: July 6, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sugimoto; Masakazu	Kawasaki			JPX
Suzuki; Tomoko	Kawasaki			JPX
Matsui; Hiroshi	Kawasaki			JPX
Izui; Katsura	Kyoto			JPX

US-CL-CURRENT: 435/252.33; 435/252.3, 435/252.32, 435/320.1, 536/23.1, 536/23.2, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 8. Document ID: US 5912161 A

L13: Entry 8 of 18 File: USPT Jun 15, 1999

US-PAT-NO: 5912161
DOCUMENT-IDENTIFIER: US 5912161 A

TITLE: Enzymes for the production of 2-keto-L-gulonic acid

DATE-ISSUED: June 15, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lazarus; Robert A.	Millbrae	CA		
Hurle; Mark	Bridgeport	PA		
Anderson; Stephen	Princeton	NJ		
Powers; David B.	Somerset	NJ		

US-CL-CURRENT: 435/252.3; 435/189, 435/190, 435/252.33, 435/320.1, 435/69.1, 536/23.2, 930/240

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 9. Document ID: US 5876983 A

L13: Entry 9 of 18 File: USPT Mar 2, 1999

US-PAT-NO: 5876983
DOCUMENT-IDENTIFIER: US 5876983 A

TITLE: Mutant phosphoenolpyruvate carboxylase, its gene, and production method of amino acid

DATE-ISSUED: March 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sugimoto; Masakazu	Kawasaki			JPX
Suzuki; Tomoko	Kawasaki			JPX
Matsui; Hiroshi	Kawasaki			JPX
Izui; Katsura	Kyoto			JPX

US-CL-CURRENT: 435/106; 435/107, 435/110, 435/113, 435/115, 435/116, 435/232, 435/252.3, 435/252.33, 435/320.1, 536/23.1 , 536/23.2, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 10. Document ID: US 5795761 A

L13: Entry 10 of 18 File: USPT Aug 18, 1998

US-PAT-NO: 5795761
DOCUMENT-IDENTIFIER: US 5795761 A

TITLE: Mutants of 2,5-diketo-D-gluconic acid (2,5-DKG) reductase A

DATE-ISSUED: August 18, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Powers; David B.	Somerset	NJ		
Anderson; Stephen	Princeton	NJ		

US-CL-CURRENT: 435/190; 435/138, 435/189, 435/69.1, 435/843, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 11. Document ID: US 5656485 A

L13: Entry 11 of 18 File: USPT Aug 12, 1997

US-PAT-NO: 5656485
DOCUMENT-IDENTIFIER: US 5656485 A

TITLE: Eimeria antigenic composition which elicits antibodies against avian coccidiosis

DATE-ISSUED: August 12, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacobson; James W.	Rockville	MD		
Strausberg; Robert L.	Silver Spring	MD		
Wilson; Susan D.	Rockville	MD		
Pope; Sharon H.	Gaithersburg	MD		
Strausberg; Susan Lee	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Augustine; Patricia C.	Laurel	MD		
Danforth; Harry D.	Severn	MD		

US-CL-CURRENT: 435/252.3; 424/191.1, 424/271.1, 435/320.1, 435/69.3, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 12. Document ID: US 5583025 A

L13: Entry 12 of 18 File: USPT Dec 10, 1996

US-PAT-NO: 5583025
DOCUMENT-IDENTIFIER: US 5583025 A

TITLE: Enzymes for the production of 2-keto-L-gulonic acid

DATE-ISSUED: December 10, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lazarus; Robert A.	Millbrae	CA		
Hurle; Mark	Bridgeport	PA		
Anderson; Stephen	Princeton	NJ		
Powers; David B.	Somerset	NJ		

US-CL-CURRENT: 435/190; 435/189, 435/252.3, 435/252.33, 435/320.1, 435/69.1, 536/23.2, 930/240

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 13. Document ID: US 5498532 A

L13: Entry 13 of 18 File: USPT Mar 12, 1996

US-PAT-NO: 5498532
DOCUMENT-IDENTIFIER: US 5498532 A

TITLE: Process for producing amino acids

DATE-ISSUED: March 12, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Katsumata; Ryoichi	Machida			JPX
Kikuchi; Yasuhiro	Salt Lake City	UT		
Nakanishi; Keiko	Machida			JPX

US-CL-CURRENT: 435/106; 435/107, 435/108, 435/110, 435/114, 435/115, 435/116, 435/252.32, 435/320.1, 435/69.1, 435/849

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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14. Document ID: US 5380657 A

L13: Entry 14 of 18 File: USPT Jan 10, 1995

US-PAT-NO: 5380657
DOCUMENT-IDENTIFIER: US 5380657 A

TITLE: Method for isolation of insertion elements from coryneform bacteria

DATE-ISSUED: January 10, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schaefer; Andreas	Bielefeld			DEX
Seep-Feldhaus; Anna-Hildegard	Bielefeld			DEX
Jaeger; Wolfgang	Bielefeld			DEX
Kalinowski; Joern	Bielefeld			DEX
Wohlleben; Wolfgang	Bielefeld			DEX
Puehler; Alfred	Bielefeld			DEX

US-CL-CURRENT: 435/6; 435/252.32, 435/320.1, 435/473, 435/487

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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15. Document ID: US 5376544 A

L13: Entry 15 of 18 File: USPT Dec 27, 1994

US-PAT-NO: 5376544
DOCUMENT-IDENTIFIER: US 5376544 A

TITLE: Enzymes for the production of 2-keto-L-gulonic acid

DATE-ISSUED: December 27, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lazarus; Robert A.	Millbrae	CA		
Hurle; Mark	Bridgeport	PA		
Anderson; Stephen	Princeton	NJ		
Powers; David B.	Somerset	NJ		

US-CL-CURRENT: 435/190; 435/189, 435/69.1, 536/23.2, 930/240

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 16. Document ID: US 5374551 A

L13: Entry 16 of 18 File: USPT Dec 20, 1994

US-PAT-NO: 5374551
DOCUMENT-IDENTIFIER: US 5374551 A

TITLE: Methods for detection, identification and speciation of members of the genus Listeria

DATE-ISSUED: December 20, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bochner; Barry R.	Alameda	CA		

US-CL-CURRENT: 435/252.1; 435/244, 435/29, 435/34, 435/4

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 17. Document ID: US 5279960 A

L13: Entry 17 of 18 File: USPT Jan 18, 1994

US-PAT-NO: 5279960
DOCUMENT-IDENTIFIER: US 5279960 A

TITLE: 25 KD coccidial antigen of eimeria tenella

DATE-ISSUED: January 18, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; David M.	Rockville	MD		
McCandliss; Russell J.	Gaithersburg	MD		
Strausberg; Susan L.	Silver Spring	MD		
Strausberg; Robert L.	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Danforth; Harry D.	Severn	MD		
Augustine; Patricia C.	Laurel	MD		

US-CL-CURRENT: 435/243; 424/191.1, 424/271.1, 435/320.1, 435/69.3, 530/388.6, 530/822, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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☐ 18. Document ID: US 5273901 A

L13: Entry 18 of 18 File: USPT Dec 28, 1993

US-PAT-NO: 5273901
DOCUMENT-IDENTIFIER: US 5273901 A

TITLE: Genetically engineered coccidiosis sporozoite 21.5 Kb antigen, ac-6b

DATE-ISSUED: December 28, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacobson; James W.	Rockville	MD		
Strausberg; Robert L.	Silver Spring	MD		
Wilson; Susan D.	Rockville	MD		
Pope; Sharon H.	Gaithersburg	MD		
Strausberg; Susan L.	Silver Spring	MD		
Ruff; Michael D.	Bowie	MD		
Augustine; Patricia C.	Laurel	MD		
Danforth; Harry D.	Severn	MD		

US-CL-CURRENT: 435/243; 424/191.1, 424/267.1, 435/320.1, 435/6, 435/69.3, 530/388.6, 530/388.85, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

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